

REMARKS

Claims 1-3 are pending. Claim 1 is the only independent claim and has been amended.

Claims 1-3 were rejected under 35 U.S.C. § 103 over U.S. Patent 6,972,573 (Ishioaka et al.) in view of JP 2001-083214 (Okawa Shinichi). Applicants submit that amended independent claim 1 is patentable over the cited references for at least the following reasons.

Claim 1 is directed to an inspection apparatus for electrical inspection of a printed board having a plurality of contacts thereon. The inspection apparatus includes: a fixed unit having a control device that controls the inspection apparatus; a moving unit operable to perform sequential inspection of the printed circuit board, the moving unit having a plurality of contact terminals that are respectively brought into contact with a first plurality of contacts on the printed board, the moving unit being operable to move above the surface of the printed board by operating a drive fixed thereto, and bring the plurality of the contact terminals of the moving unit in contact with a second plurality of contacts on the printed circuit board; a plurality of first wires directly connected with the plurality of contact terminals in the moving unit; at least one connection switching device arranged in the moving unit and connected with the first wires, for selectively switching over the plurality of first wires in response to connection switching signals; a connection switching signal transmitter arranged inside of the fixed unit, for transmitting the connection switching signals; a connection switching signal receiver arranged inside of the moving unit, for receiving the connection switching signals; a plurality of second wires connected with the fixed unit and the moving unit for transmission of the connection switching signals from the fixed unit to the moving unit; and a plurality of third wires, the number of which is less than

the number of the first wires and which is arranged between the fixed unit and the moving unit, for establishing connections between the fixed unit and a part of the first wires, which are switched over by the at least one connection switching device in response to the connection switching signals.

Claim 1 is directed to an inspection apparatus in which the moving unit (e.g. 20) having plural probes (e.g., 21) moves above the printed-circuit board and is brought into contact with the contacts of the printed-circuit board. The moving unit is adapted so as to sequentially perform inspection. A plurality of contact terminals of the moving unit are respectively brought into contact with a first plurality of contacts on the printed board. The moving unit is operable to move above the surface of the printed board by operating a drive fixed thereto, and bring the plurality of the contact terminals of the moving unit in contact with a second plurality of contacts on the printed circuit board.

In Ishioka et al., each tip of the probes 22 is brought into contact with one of the ends of the corresponding circuit wiring 101 on the circuit board 100 to supply an electric signal to the circuit wirings 101 so as to detect signals by means of the sensor element 11 of the sensor unit 1. A selector 23 selects, by switching, the appropriate one of the probes 22 for outputting the electric test signal. See col. 3, lines 25-39. That is, in Ishioka et al., as can be seen from, e.g., Figure 2, one from among a group of fixed probes 22 is selected by switches 23 to output the electric test signal. This is quite different from the invention of claim 1 in which a *moving unit* is provided, as recited.

Okawa Shinichi teaches circuitry for performing inspection on the semiconductor integrated circuit in which, in response to the selection address signal output from the selection circuit, one of the plural measured elements 11 is selected and is connected to the characteristic measurement terminal 13, allowing the number of the

characteristic measurement terminals 13 to be reduced. However, in Okawa Shinichi the probe does not teach or reasonably suggest a moving unit that sequentially performs measurement on the measurement points while it moves above the printed-circuit board, as in claim 1.

In the Office Action, the Examiner stated that claim 1 did not explicitly recite sequentially performing inspection, as had been mentioned in the previously filed arguments. Claim 1 has been amended to recite, *inter alia*, that the moving unit is adapted to perform sequential inspection.

The Examiner also stated, at pages 2-3 of the Office Action that “Ishioka et al. (‘573)’s probe 22 can be rearranged to move above the surface of the printed circuit board,” citing case law relating to the mere rearrangement of parts discussed in the MPEP at Section 2144.04 VI C. However, such case law is not applicable to the present case.

The case law relating to the “rearrangement of parts” is based upon the prior art having the same parts, but their *arrangement* (i.e., position) being changed somewhat. For example, in *In re Japikse*, 181 F.2d 1019 (CCPA 1950) it was merely the position of a (presumably known) starting switch that had been changed. It was held that the shifting of the position of the switch would not “have modified the operation of the device.”

In the present case, the prior art of record in this case does not have any teaching of a *moving* unit as recited. The probes 22 of Ishioka et al. are clearly shown as being fixed with respect to the printed circuit board and with respect to switches 23 during selection. The switching between and among the probes 22 is done by switches

23, without moving the probes 22. There is no concept of the recited moving unit with probe contacts in Ishioka, or in Okawa.

The change from using a stationary set of probes, in which one of the probes is connected by a switch, to using a *moving* unit with contact terminals that moves above the surface of the printed board is not simply a rearrangement of parts. In particular, it is *not* simply a change in position of the very same element, as was the case in *In re Japikse* and *In re Kuhle*, 526 F.2d 553 (CCPA 1975), cited in the MPEP.

Simply locating the fixed probes of Ishioka in a different position relative to the circuit card is not what is being claimed. Claim 1 recites a moving unit, a structure not shown or contemplated in the cited references, which results in a substantially different mode of operation from the prior art references.

For at least the foregoing reasons, the cited references, taken alone or in combination, do not teach the features of amended independent claim 1, which is believed patentable thereover. The dependent claims are believed patentable for at least the same reasons as claim 1.

This Amendment in Response to Final Office Action is believed clearly to place this application in condition for allowance and its entry is therefore believed proper under 37 C.F.R. § 1.116. In any event, entry of this Amendment in Response to Final Office Action, as an earnest effort to advance prosecution and reduce the number of issues, is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

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Respectfully submitted,

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